

## CLAIMS

1. An isolated polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein, or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(a) polynucleotides recited in any one of SEQ ID NOs:1, 2, 5, 9, 10, 13, 16, 19, 23, 27, 28, 32, 33, 35, 38, 41-50, 52, 53, 56, 57, 63, 65, 69-72, 75, 78, 80-82, 84, 86, 89-93, 95, 97-100, 103, 107, 111, 114, 117, 120, 121, 125, 128, 132-134, 136, 137, 140, 143-146, 148-151, 156, 158, 160-162, 166-168, 171, 174-183, 185, 193, 194; and

(b) complements of the foregoing polynucleotides.

2. A polypeptide according to claim 1, wherein the polypeptide comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(a) polynucleotides recited in any one of SEQ ID NOs:1, 2, 5, 9, 10, 13, 16, 19, 23, 27, 28, 32, 33, 35, 38, 41-50, 52, 53, 56, 57, 63, 65, 69-72, 75, 78, 80-82, 84, 86, 89-93, 95, 97-100, 103, 107, 111, 114, 117, 120, 121, 125, 128, 132-134, 136, 137, 140, 143-146, 148-151, 156, 158, 160-162, 166-168, 171, 174-183, 185, 193, 194; and

(b) complements of such polynucleotides.

3. An isolated polynucleotide encoding at least 5 amino acid residues of a polypeptide according to claim polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein, or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian

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carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(a) polynucleotides recited in any one of SEQ ID NOs:1, 2, 5, 9, 10, 13, 16, 19, 23, 27, 28, 32, 33, 35, 38, 41-50, 52, 53, 57, 63, 65, 69-72, 75, 78, 81, 82, 84, 86, 89-93, 95, 97-100, 103, 107, 111, 114, 117, 120, 121, 125, 128, 132-134, 136, 137, 143-146, 148-151, 156, 158, 160-162, 166-168 or 171, 174-183, 185, 193, 194; and

(b) complements of the foregoing polynucleotides

4. A polynucleotide according to claim 3, wherein the polynucleotide encodes an immunogenic portion of the polypeptide.

5. A polynucleotide according to claim 3, wherein the polynucleotide comprises a sequence recited in any one of SEQ ID NOs:1, 2, 5, 9, 10, 13, 16, 19, 23, 27, 28, 32, 33, 35, 38, 41-50, 52, 53, 57, 63, 65, 69-72, 75, 78, 81, 82, 84, 86, 89-93, 95, 97-100, 103, 107, 111, 114, 117, 120, 121, 125, 128, 132-134, 136, 137, 143-146, 148-151, 156, 158, 160-162, 166-168, 171 or 174-183, 185, 193, 194 or a complement of any of the foregoing sequences.

6. An isolated polynucleotide complementary to a polynucleotide according to claim 3.

7. An expression vector comprising a polynucleotide according to claim 3 or claim 6.

8. A host cell transformed or transfected with an expression vector according to claim 7.

9. A pharmaceutical composition comprising a polypeptide according to claim 1, in combination with a physiologically acceptable carrier.

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10. A pharmaceutical composition according to claim 9, wherein the polypeptide comprises an amino acid sequence encoded by a polynucleotide that comprises a sequence recited in any one of SEQ ID NOs:1, 2, 5, 9, 10, 13, 16, 19, 23, 27, 28, 32, 33, 35, 38, 41-50, 52, 53, 56, 57, 63, 65, 69-72, 75, 78, 80-82, 84, 86, 89-93, 95, 97-100, 103, 107, 111, 114, 117, 120, 121, 125, 128, 132-134, 136, 137, 140, 143-146, 148-151, 156, 158, 160-162, 166-168, 171, 174-183, 185, 193 and 194.

11. A vaccine comprising a polypeptide according to claim 1, in combination with a non-specific immune response enhancer

12. A vaccine according to claim 11, wherein the polypeptide comprises an amino acid sequence encoded by a polynucleotide that comprises a sequence recited in any one of SEQ ID NOs:1, 2, 5, 9, 10, 13, 16, 19, 23, 27, 28, 32, 33, 35, 38, 41-50, 52, 53, 56, 57, 63, 65, 69-72, 75, 78, 80-82, 84, 86, 89-93, 95, 97-100, 103, 107, 111, 114, 117, 120, 121, 125, 128, 132-134, 136, 137, 140, 143-146, 148-151, 156, 158, 160-162, 166-168, 171, 174-183, 185, 193 and 194.

13. A pharmaceutical composition comprising:

(a) a polynucleotide encoding an ovarian carcinoma polypeptide, wherein the polypeptide comprises at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1, 2, 5, 9, 10, 13, 16, 19, 23, 27, 28, 32, 33, 35, 38, 41-50, 52, 53, 56, 57, 63, 65, 69-72, 75, 78, 80-

82, 84, 86, 89-93, 95, 97-100, 103, 107, 111, 114, 117, 120, 121, 125, 128, 132-134, 136, 137, 140, 143-146, 148-151, 156, 158, 160-162, 166-168, 171, 174-183, 185, 193, 194; and

- (ii) complements of the foregoing polynucleotides; and
- (b) a physiologically acceptable carrier.

14. A pharmaceutical composition according to claim 13, wherein the polynucleotide comprises a sequence recited in any one of SEQ ID NOs:1, 2, 5, 9, 10, 13, 16, 19, 23, 27, 28, 32, 33, 35, 38, 41-50, 52, 53, 56, 57, 63, 65, 69-72, 75, 78, 80-82, 84, 86, 89-93, 95, 97-100, 103, 107, 111, 114, 117, 120, 121, 125, 128, 132-134, 136, 137, 140, 143-146, 148-151, 156, 158, 160-162, 166-168, 171, 174-183, 185, 193, 194 or a complement of any of the foregoing sequences.

15. A vaccine comprising:

(a) a polynucleotide encoding an ovarian carcinoma polypeptide, wherein the polypeptide comprises at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

- (i) polynucleotides recited in any one of SEQ ID NOs:1, 2, 5, 9, 10, 13, 16, 19, 23, 27, 28, 32, 33, 35, 38, 41-50, 52, 53, 56, 57, 63, 65, 69-72, 75, 78, 80-82, 84, 86, 89-93, 95, 97-100, 103, 107, 111, 114, 117, 120, 121, 125, 128, 132-134, 136, 137, 140, 143-146, 148-151, 156, 158, 160-162, 166-168, 171, 174-183, 185, 193, 194; and
- (ii) complements of the foregoing polynucleotides; and

16. A vaccine according to claim 15, wherein the polynucleotide comprises a sequence recited in any one of SEQ ID NOs:1, 2, 5, 9, 10, 13, 16, 19, 23, 27, 28, 32, 33, 35, 38, 41-50, 52, 53, 56, 57, 63, 65, 69-72, 75, 78, 80-82, 84, 86, 89-93, 95, 97-

100, 103, 107, 111, 114, 117, 120, 121, 125, 128, 132-134, 136, 137, 140, 143-146, 148-151, 156, 158, 160-162, 166-168, 171, 174-183, 185, 193, 194.

17. A pharmaceutical composition comprising:

(a) an antibody that specifically binds to an ovarian carcinoma protein, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1, 2, 5, 9, 10, 13, 16, 19, 23, 27, 28, 32, 33, 35, 38, 41-50, 52, 53, 56, 57, 63, 65, 69-72, 75, 78, 80-82, 84, 86, 89-93, 95, 97-100, 103, 107, 111, 114, 117, 120, 121, 125, 128, 132-134, 136, 137, 140, 143-146, 148-151, 156, 158, 160-162, 166-168, 171, 174-183, 185, 193, 194; and

(ii) complements of such polynucleotides; and

(b) a physiologically acceptable carrier.

18. A method for inhibiting the development of ovarian cancer in a patient, comprising administering to a patient an effective amount of an agent selected from the group consisting of:

(a) an ovarian carcinoma polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and

(ii) complements of such polynucleotides;

(b) a polynucleotide encoding a polypeptide as recited in (a); and

(c) an antibody that specifically binds to an ovarian carcinoma protein that comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and

(ii) complements of such polynucleotides;  
and thereby inhibiting the development of ovarian cancer in the patient.

19. A method according to claim 18, wherein the agent is present within a pharmaceutical composition according to any one of claims 9, 13 or 17.

20. A method according to claim 18, wherein the agent is present within a vaccine according to any one of claims 11, 15 or 18.

21. A fusion protein comprising at least one polypeptide according to claim 1.

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23. A pharmaceutical composition comprising a fusion protein according to claim 21 in combination with a physiologically acceptable carrier.

24. A vaccine comprising a fusion protein according to claim 21 in combination with a non-specific immune response enhancer.

25. A pharmaceutical composition comprising a polynucleotide according to claim 22 in combination with a physiologically acceptable carrier.

26. A vaccine comprising a polynucleotide according to claim 22 in combination with a non-specific immune response enhancer.

27. A method for inhibiting the development of ovarian cancer in a patient, comprising administering to a patient an effective amount of a pharmaceutical composition according to claim 23 or claim 25.

28. A method for inhibiting the development of ovarian cancer in a patient, comprising administering to a patient an effective amount of a vaccine according to claim 23 or claim 26.

29. A pharmaceutical composition, comprising:

(a) an antigen presenting cell that expresses an ovarian carcinoma polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and

(ii) complements of such polynucleotides; and

(b) a pharmaceutically acceptable carrier or excipient.

30. A vaccine, comprising:

(a) an antigen presenting cell that expresses an ovarian carcinoma polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not

substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and

(ii) complements of such polynucleotides; and

(b) a non-specific immune response enhancer.

31. A vaccine comprising:

(a) an anti-idiotypic antibody or antigen-binding fragment thereof that is specifically bound by an antibody that specifically binds to an ovarian carcinoma protein that comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and

(ii) complements of such polynucleotides; and

(b) non-specific immune response enhancer.

32. A vaccine according to claim 30 or claim 31, wherein the immune response enhancer is an adjuvant.

33. A pharmaceutical composition, comprising:

(a) a T cell that specifically reacts with an ovarian carcinoma polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

187-199; and

- (i) polynucleotides recited in any one of SEQ ID NOs:1-185 and

- (ii) complements of such polynucleotides; and
- (b) a physiologically acceptable carrier.

34. A vaccine, comprising:

- (a) a T cell that specifically reacts with an ovarian carcinoma polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

- (i) polynucleotides recited in any one of SEQ ID NOs:1-185 and

187-199 and

- (ii) complements of such polynucleotides; and
- (b) a non-specific immune response enhancer.

35. A method for inhibiting the development of ovarian cancer in a patient, comprising administering to the patient an effective amount of a pharmaceutical composition according to claim 29 or claim 33.

36. A method for inhibiting the development of ovarian cancer in a patient, comprising administering to the patient an effective amount of a vaccine according to any one of claims 30, 31 or 34.

37. A method for stimulating and/or expanding T cells, comprising contacting T cells with:

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(a) an ovarian carcinoma polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and

(ii) complements of such polynucleotides;

(b) a polynucleotide encoding such a polypeptide; and/or

(c) an antigen presenting cell that expresses such a polypeptide under conditions and for a time sufficient to permit the stimulation and/or expansion of T cells.

38. A method according to claim 37, wherein the T cells are cloned prior to expansion.

39. A method for stimulating and/or expanding T cells in a mammal, comprising administering to a mammal a pharmaceutical composition comprising:

(a) one or more of:

(i) an ovarian carcinoma polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and  
complements of such polynucleotides;

(ii) a polynucleotide encoding an ovarian carcinoma polypeptide;

or

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(iii) an antigen-presenting cell that expresses an ovarian carcinoma polypeptide; and

(b) a physiologically acceptable carrier or excipient;  
and thereby stimulating and/or expanding T cells in a mammal.

40. A method for stimulating and/or expanding T cells in a mammal, comprising administering to a mammal a vaccine comprising:

(a) one or more of:

(i) an ovarian carcinoma polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and  
complements of such polynucleotides;

(ii) a polynucleotide encoding an ovarian carcinoma polypeptide;  
or

(iii) an antigen-presenting cell that expresses an ovarian carcinoma polypeptide; and

(b) a non-specific immune response enhancer;  
and thereby stimulating and/or expanding T cells in a mammal.

41. A method for inhibiting the development of ovarian cancer in a patient, comprising administering to a patient T cells prepared according to the method of claim 39 or claim 40.

42. A method for inhibiting the development of ovarian cancer in a patient, comprising the steps of:

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- (a) incubating CD4<sup>+</sup> T cells isolated from a patient with one or more of:
  - (i) an ovarian carcinoma polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:
    - polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and
    - complements of such polynucleotides;
  - (ii) a polynucleotide encoding an ovarian carcinoma polypeptide;
- or
- (iii) an antigen-presenting cell that expresses an ovarian carcinoma polypeptide;
  - such that T cells proliferate; and
- (b) administering to the patient an effective amount of the proliferated T cells, and therefrom inhibiting the development of ovarian cancer in the patient.

43. A method for inhibiting the development of ovarian cancer in a patient, comprising the steps of:

- (a) incubating CD4<sup>+</sup> T cells isolated from a patient with one or more of:
  - (i) an ovarian carcinoma polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:
    - polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and
    - complements of such polynucleotides;



45. A method for inhibiting the development of ovarian cancer in a patient, comprising the steps of:

(a) incubating CD8<sup>+</sup> T cells isolated from a patient with one or more of:

(i) an ovarian carcinoma polypeptide comprising at least an immunogenic portion of an ovarian carcinoma protein or a variant thereof that differs in one or more substitutions, deletions, additions and/or insertions such that the ability of the variant to react with antigen-specific antisera is not substantially diminished, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and complements of such polynucleotides;

(ii) a polynucleotide encoding an ovarian carcinoma polypeptide;

or

(iii) an antigen-presenting cell that expresses an ovarian carcinoma polypeptide;

such that the T cells proliferate;

(b) cloning one or more proliferated cells; and

(c) administering to the patient an effective amount of the cloned T cells.

46. A method for determining the presence or absence of a cancer in a patient, comprising the steps of:

(a) contacting a biological sample obtained from a patient with a binding agent that binds to an ovarian carcinoma protein, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and

(ii) complements of the foregoing polynucleotides;

(b) detecting in the sample an amount of polypeptide that binds to the binding agent; and

(c) comparing the amount of polypeptide to a predetermined cut-off value, and therefrom determining the presence or absence of a cancer in the patient.

47. A method according to claim 46, wherein the binding agent is an antibody.

48. A method according to claim 47, wherein the antibody is a monoclonal antibody.

49. A method according to claim 46, wherein the cancer is ovarian cancer.

50. A method for monitoring the progression of a cancer in a patient, comprising the steps of:

(a) contacting a biological sample obtained from a patient at a first point in time with a binding agent that binds to an ovarian carcinoma protein, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and

(ii) complements of the foregoing polynucleotides;

(b) detecting in the sample an amount of polypeptide that binds to the binding agent;

(c) repeating steps (a) and (b) using a biological sample obtained from the patient at a subsequent point in time; and

(d) comparing the amount of polypeptide detected in step (c) to the amount detected in step (b) and therefrom monitoring the progression of the cancer in the patient.

51. A method according to claim 50, wherein the binding agent is an antibody.

52. A method according to claim 51, wherein the antibody is a monoclonal antibody.

53. A method according to claim 50, wherein the cancer is ovarian cancer.

54. A method for determining the presence or absence of a cancer in a patient, comprising the steps of:

(a) contacting a biological sample obtained from a patient with an oligonucleotide that hybridizes to a polynucleotide that encodes an ovarian carcinoma protein, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and

(ii) complements of the foregoing polynucleotides;

(b) detecting in the sample an amount of a polynucleotide that hybridizes to the oligonucleotide; and

(c) comparing the amount of polynucleotide that hybridizes to the oligonucleotide to a predetermined cut-off value, and therefrom determining the presence or absence of a cancer in the patient.

55. A method according to claim 54, wherein the amount of polynucleotide that hybridizes to the oligonucleotide is determined using a polymerase chain reaction.

56. A method according to claim 54, wherein the amount of polynucleotide that hybridizes to the oligonucleotide is determined using a hybridization assay.

57. A method for monitoring the progression of a cancer in a patient, comprising the steps of:

(a) contacting a biological sample obtained from a patient with an oligonucleotide that hybridizes to a polynucleotide that encodes an ovarian carcinoma protein, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and

(ii) complements of the foregoing polynucleotides;

(b) detecting in the sample an amount of a polynucleotide that hybridizes to the oligonucleotide;

(c) repeating steps (a) and (b) using a biological sample obtained from the patient at a subsequent point in time; and

(d) comparing the amount of polynucleotide detected in step (c) to the amount detected in step (b) and therefrom monitoring the progression of the cancer in the patient.

58. A method according to claim 57, wherein the amount of polynucleotide that hybridizes to the oligonucleotide is determined using a polymerase chain reaction.

59. A method according to claim 57, wherein the amount of polynucleotide that hybridizes to the oligonucleotide is determined using a hybridization assay.

60. A diagnostic kit, comprising:

(a) one or more antibodies or antigen-binding fragments thereof that specifically bind to an ovarian carcinoma protein that comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

(i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and

(ii) complements of the foregoing polynucleotides.; and

(b) a detection reagent comprising a reporter group.

61. A kit according to claim 60, wherein the antibodies are immobilized on a solid support.

62. A kit according to claim 61, wherein the solid support comprises nitrocellulose, latex or a plastic material.

63. A kit according to claim 60, wherein the detection reagent comprises an anti-immunoglobulin, protein G, protein A or lectin.

64. A kit according to claim 60, wherein the reporter group is selected from the group consisting of radioisotopes, fluorescent groups, luminescent groups, enzymes, biotin and dye particles.

65. A diagnostic kit, comprising:

(a) an oligonucleotide comprising 10 to 40 nucleotides that hybridize under moderately stringent conditions to a polynucleotide that encodes an ovarian

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carcinoma protein, wherein the ovarian carcinoma protein comprises an amino acid sequence that is encoded by a polynucleotide sequence selected from the group consisting of:

- (i) polynucleotides recited in any one of SEQ ID NOs:1-185 and 187-199; and
  - (ii) complements of the foregoing polynucleotides; and
- (b) a diagnostic reagent for use in a polymerase chain reaction or hybridization assay.

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